

SEQUENCE LISTING

<11> Brett A. Monia
Lex M. Cowsett
Joe Murray
Mandy Butler
Nick Dean

<12> ANTISENSE MODULATION OF HIV-1 EXPRESSION

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5

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Tyr Arg Ala Leu Tyr Asp Tyr Lys Lys Glu Arg Glu Glu Asp Ile Asp

19

10

15

20

cta cac ctg ggg gac ata ctg act gtg aat aaa ggg tcc tta gtg gca 691
 Leu His Leu Gly Asp Ile Leu Thr Val Asn Lys Gly Ser Leu Val Ala
 25 30 35

ctt gga ttc agt gat ggc cag gaa gcc cgg cct gaa gat att ggc tgg 739
 Leu Gly Phe Ser Asp Gly Gln Glu Ala Arg Pro Glu Asp Ile Gly Trp
 40 45 50 55

tta aat ggc tac aat gaa acc act ggg gag agg gga gac ttt cca gga 787
 Leu Asn Gly Tyr Asn Glu Thr Thr Gly Glu Arg Gly Asp Phe Pro Gly
 60 65 70

act tac gtt gaa tac att gga agg aaa aga att tca ccc cct act ccc 835
 Thr Tyr Val Glu Tyr Ile Gly Arg Lys Arg Ile Ser Pro Pro Thr Pro
 75 80 85

aag cct cgg ccc cct cga ccg ctt cct gtt gct ccg ggt tct tca aaa 883
 Lys Pro Arg Pro Pro Arg Pro Leu Pro Val Ala Pro Gly Ser Ser Lys
 90 95 100

act gaa gct gac acg gag cag caa ggg tgg ccc cct cct gat ctg gcc 931
 Thr Glu Ala Asp Thr Glu Gln Gln Ala Leu Pro Leu Pro Asp Leu Ala
 105 110 115

gag cag ttt gcc cct cct gat gtt gcc ccg cct ctc ctt ata aag ctc 979
 Glu Gln Phe Ala Pro Pro Asp Val Ala Pro Pro Leu Leu Ile Lys Leu
 120 125 130 135

ctg gaa gcc att gag aag aaa gga ctg gaa tgt tgg act cta tac aga 1027
 Leu Glu Ala Ile Glu Lys Lys Gly Leu Glu Cys Ser Thr Leu Tyr Arg
 140 145 150

aca caa ago tcc agc aac cct gca gaa tta cga cag ctt ctt gat tgt 1075
 Thr Gln Ser Ser Ser Asn Pro Ala Glu Leu Arg Gln Leu Leu Asp Cys
 155 160 165

gat gcc gcg tca gtg gac tgg gag atg atc gac gta cac gtc tta gca 1123

Asp	Ala	Ala	Ser	Val	Asp	Leu	Gln	Met	Ile	Asp	Val	His	Val	Leu	Ala	
170							175					180				
gat	gct	ctc	aaa	ggc	tat	ctc	gac	gac	ttt	cca	aat	ccg	gtc	att	ccg	1171
Asp	Ala	Phe	Lys	Arg	Tyr	Leu	Ala	Asp	Leu	Pro	Asn	Pro	Val	Ile	Pro	
185						190				195						
gta	gct	gtt	tac	aat	gag	atg	atg	tct	ttt	ggc	caa	gaa	cta	cag	agg	1219
Val	Ala	Val	Tyr	Asn	Gln	Met	Met	Ser	Leu	Ala	Gln	Gln	Leu	Gln	Ser	
200					205				210				215			
ccg	gaa	gac	tgc	atc	cag	ctg	ttg	aag	aag	ctc	att	aga	ttg	ccg	aat	1267
Pro	Glu	Asp	Cys	Ile	Gln	Leu	Leu	Lys	Lys	Leu	Ile	Arg	Leu	Pro	Asn	
			220					225				230				
ata	ccg	cat	cag	tgt	tgg	ctt	acg	ctt	cag	tat	ttg	ctc	aag	cat	ttt	1315
Ile	Pro	His	Gln	Cys	Trp	Leu	Thr	Leu	Gln	Tyr	Leu	Leu	Lys	His	Phe	
		235				240					245					
ttc	aag	ctc	tct	caa	ggc	tcg	agg	aaa	aac	ctt	ttg	aat	gca	aga	gtc	1363
Phe	Lys	Leu	Ser	Gln	Ala	Ser	Ser	Lys	Asn	Leu	Leu	Asn	Ala	Arg	Val	
	250					255				260						
ctc	tct	gag	att	ttc	agg	ccc	gtg	ctt	ttc	aga	ttt	cca	ggc	ggc	agg	1411
Leu	Ser	Gln	Ile	Phe	Ser	Pro	Val	Leu	Phe	Arg	Phe	Pro	Ala	Ala	Ser	
	265					270				275						
tct	gat	aat	act	gaa	cac	ctc	ata	aaa	ggc	ata	gag	att	ttt	atc	tca	1459
Ser	Asp	Asn	Thr	Glu	His	Leu	Ile	Lys	Ala	Ile	Gln	Ile	Leu	Ile	Ser	
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Thr	Glu	Trp	Asn	Gln	Arg	Gln	Pro	Ala	Pro	Ala	Leu	Pro	Pro	Lys	Pro	
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ccc	aag	ccc	act	act	gta	ggc	aac	aac	agg	atg	aac	aac	aat	atg	tcg	1555
Pro	Lys	Pro	Thr	Thr	Val	Ala	Asn	Asn	Ser	Met	Asn	Asn	Asn	Met	Ser	
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ttg cag gat gct gaa tgg tac tgg gga gac att tca agg gaa gaa gtg	1603
Leu Gln Asp Ala Glu Trp Tyr Trp Gly Asp Ile Ser Arg Glu Glu Val	
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Asn Glu Lys Leu Arg Asp Thr Ala Asp Gly Thr Phe Leu Val Arg Asp	
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Ala Ser Thr Lys Met His Gly Asp Tyr Thr Leu Thr Pro Arg Lys Gly	
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Gly Asn Asn Lys Leu Ile Lys Ile Phe His Arg Asp Gly Lys Tyr Gly	
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Phe Ser Asp Pro Leu Thr Phe Asn Ser Val Val Glu Leu Ile Asn His	
395 400 405	
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Tyr Arg Asn Glu Ser Leu Ala Gln Tyr Asn Pro Lys Leu Asp Val Lys	
410 415 420	
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Leu Leu Tyr Pro Val Ser Lys Tyr Gln Gln Asp Gln Val Val Lys Glu	
425 430 435	
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Asp Asn Ile Glu Ala Val Gly Lys Lys Leu His Glu Tyr Asn Thr Gln	
440 445 450 455	
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Phe Gln Glu Lys Ser Arg Glu Tyr Asp Arg Leu Tyr Glu Glu Tyr Thr	
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Arg Thr Ser Gln Glu Ile Gln Met Lys Arg Thr Ala Ile Glu Ala Phe	
475 480 485	

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Asn Glu Thr Ile Lys Ile Phe Gln Gln Gln Lys Gln Thr Gln Glu Arg	
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Tyr Ser Lys Glu Tyr Ile Glu Lys Phe Lys Arg Glu Gly Asn Glu Lys	
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gaa att caa agg att atg cat aac cat gat aag ctg aag tgg cgt atc	2179
Glu Ile Gln Arg Ile Met His Asn His Asp Lys Leu Lys Ser Arg Ile	
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Ser Glu Ile Ile Asp Ser Arg Arg Arg Leu Glu Glu Asp Leu Lys Lys	
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Gln Ala Ala Glu Tyr Arg Glu Ile Asp Lys Arg Met Asn Ser Ile Lys	
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Pro Asp Leu Ile Gln Leu Arg Lys Thr Arg Asp Gln Tyr Leu Met Trp	
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Leu Thr Gln Lys Gly Val Arg Gln Lys Lys Leu Asn Glu Trp Leu Gly	
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Asn Glu Asn Thr Glu Asp Gln Tyr Ser Leu Val Glu Asp Asp Glu Asp	
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Leu Pro His His Asp Glu Lys Thr Trp Asn Val Gly Ser Ser Asn Arg	
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640

645

gtc cgg gag agc agt aag cag ggc tgc tac gcc tgc tcc gta gtg gta 2603
Val Arg Glu Ser Ser Lys Gln Gly Cys Tyr Ala Cys Ser Val Val Val

650

655

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Asp Gly Glu Val Lys His Cys Val Ile Asn Lys Thr Ala Thr Gly Tyr

665

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675

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Gly Phe Ala Glu Pro Tyr Asn Leu Tyr Ser Ser Leu Lys Glu Leu Val

680

685

690

695

cta cat tat caa cac acc tcc ctc gtg cag cac aat gac tcc ctc aat 2707
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700

705

710

gtc aca cta gca tac caa gta tat gca caa cag agg cga tga 2749
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715

720

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